



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0085; Directorate Identifier 2011-SW-004-AD]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-61A, D, E, L, N, NM, R, and V helicopters to require replacing each forward and aft fuel system 40 micron fuel filter element with a 10 micron fuel filter element. This proposed AD is prompted by a National Transportation Safety Board (NTSB) review of in-service events where engine performance degradation occurred and the review determined that some of these events were caused by contaminants larger than 10 microns present in the engine fuel control units (FCUs). The proposed actions are intended to prevent particulate contamination in the FCU, which could lead to malfunction of an internal valve(s), power loss at a critical phase of flight, and loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

EXAMINING THE AD DOCKET: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main St., Stratford, CT; telephone (203) 383-4866; email tsslibrary@sikorsky.com, or at <http://www.sikorsky.com>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Kirk Gustafson, Aerospace Engineer, Boston Aircraft Certification Office, Engine and Propeller Directorate, FAA,

12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7190;
email kirk.gustafson@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

We propose to adopt a new AD for the Sikorsky Model S-61A, D, E, L, N, NM, R, and V helicopters with a fuel system 40 micron fuel filter element, part number (P/N) 52-0505-2 or 52-01064-1. This proposed AD would require replacing each forward and aft fuel system 40 micron fuel filter element with a 10 micron fuel filter element.

This proposed AD was prompted by an NTSB review of in-service events involving Sikorsky S-61 model helicopters where engine performance degradation occurred. The review determined that contaminants larger than 10 microns entering the engine FCU can migrate to the internal servo valves and the pressuring regulating valve, causing them to malfunction. Malfunction of these valves can result in abnormal engine operation and loss of power. The NTSB conducted this review as a part of its investigation of an accident involving a Sikorsky S-61 model helicopter. During disassembly and examination of the FCUs in the accident helicopter, the NTSB found trace levels of contamination in each FCU, indicating the filters in the fuel supply system did not completely filter contaminants from the fuel. The NTSB stated that no evidence exists that contamination contributed to the accident, but concluded that using fuel system 10 micron fuel filters could reduce the risk of engine performance degradation occurring due to fuel contamination. This condition of particulate contamination in the FCU, if not corrected, could lead to malfunction of an internal valve, power loss at a critical phase of flight, and loss of control of the helicopter.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Related Service Information

We reviewed Sikorsky Alert Service Bulletin (ASB) No. 61B30-16, dated February 2, 2010 (ASB No. 61B30-16), which supersedes ASB No. 61B28-1, dated January 15, 2010 (ASB No. 61B28-1). ASB No. 61B28-1 specified replacing the forward

and aft fuel system 40 micron fuel filter elements with 10 micron fuel filter elements at the next scheduled inspection or within 150 flight hours from the issuance of the ASB. ASB 61B30-16 retains the same instructions as ASB 61B28-1, but deletes the compliance time “at the next scheduled preventative maintenance inspection.” Also, ASB No. 61B30-16 was issued because ASB No. 61B28-1 was incorrectly numbered.

Proposed AD Requirements

This proposed AD would require, within 150 hours time-in-service (TIS), replacing each forward and aft fuel system 40 micron fuel filter element with a 10 micron fuel filter element. Thereafter, operators would only be permitted to install a fuel system 10 micron fuel filter element when replacing the forward or aft fuel system fuel filter element. This proposed AD would also require re-identifying the fuel filter and the fuel control assembly.

Differences between this Proposed AD and the Service Information

ASB 61B30-16 specifies complying with the instructions within 150 flight hours from the issuance of the ASB, but this proposed AD requires complying with the instructions within 150 hours TIS from the effective date of the proposed AD.

Costs of Compliance

We estimate that this proposed AD would affect 78 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. It would take approximately 4 work-hours to replace the fuel system fuel filters and re-identify the fuel tank fuel filter and fuel control assembly bracket. The average labor rate is \$85 per work-hour and required parts will cost about \$370 per helicopter. Based on

these figures, we estimate the cost of the proposed AD on U.S. operators would be \$710 per helicopter and the total cost of this AD on U.S. operators would be \$55,380.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new Airworthiness Directive (AD):

SIKORSKY AIRCRAFT CORPORATION: Docket No. FAA-2012-0085;

Directorate Identifier 2011-SW-004-AD.

(a) **Applicability.** This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-61A, D, E, L, N, NM, R, and V helicopters with a fuel system 40 micron fuel filter element, part number (P/N) 52-0505-2 or 52-01064-1, certificated in any category.

(b) **Unsafe Condition.** This AD defines the unsafe condition as contaminants present in the engine fuel control units (FCUs). This AD was prompted by a National Transportation Safety Board review of in-service events where engine performance degradation occurred. This condition could result in particulate contamination in the FCU, which could lead to malfunction of an internal valve, power loss at a critical phase of flight, and loss of control of the helicopter.

(c) **Compliance.** You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) **Required Actions.**

(1) Within 150 hours time-in-service, do the following:

(i) Replace each forward and aft fuel system 40 micron fuel filter element with a 10 micron fuel filter element, P/N AM52-01064-1.

(ii) Re-identify the fuel filter, P/N 52-2145-009, and fuel control assembly bracket as follows:

(A) On the fuel filter identification plate, cross out the last two digits (“09”) of the existing fuel filter P/N 52-2145-009, and replace those last two digits with “14” to re-identify the fuel filter as P/N 52-2145-014.

(B) Change the existing fuel control assembly part number on the fuel control assembly bracket to re-identify it as follows:

(1) Change fuel control assembly P/N S6130-63209-001 to P/N S6130-63209-041.

(2) Change fuel control assembly P/N S6130-63209-002 to P/N S6130-63209-042.

(3) Change fuel control assembly P/N S6130-63209-003 to P/N S6130-63209-043.

(4) Change fuel control assembly P/N S6130-63209-004 to P/N S6130-63209-044.

(e) Alternative Methods of Compliance (AMOC).

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Kirk Gustafson, Aerospace Engineer, Boston Aircraft Certification Office, Engine and Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7190; email kirk.gustafson@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(f) Additional Information. Sikorsky Aircraft Corporation Alert Service Bulletin No. 61B30-16, dated February 2, 1010, which is not incorporated by reference, contains

additional information about the subject of this AD. For this service information, contact Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main St., Stratford, CT; telephone (203) 383-4866; email tsslibrary@sikorsky.com, or at <http://www.sikorsky.com>. You may review copies of this information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(g) **Subject.** Joint Aircraft Service Component (JASC) Code: 2800, Fuel system.
Issued in Fort Worth, Texas, on January 23, 2012.

Kim Smith,

Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2012-2421 Filed 02/02/2012 at 8:45 am; Publication Date: 02/03/2012]